

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
17 June 2004 (17.06.2004)

PCT

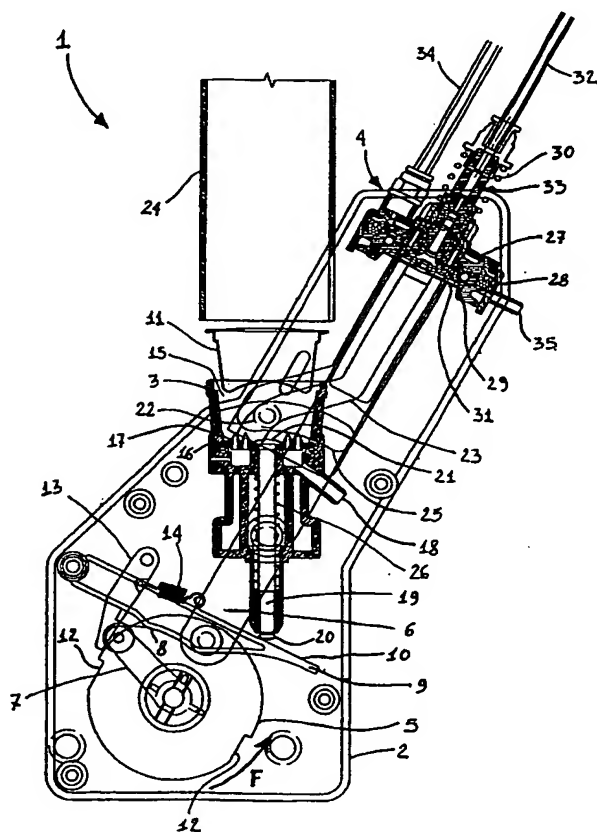
(10) International Publication Number  
**WO 2004/049878 A1**

- (51) International Patent Classification<sup>7</sup>: **A47J 31/40**
- (21) International Application Number:  
PCT/EP2003/012681
- (22) International Filing Date:  
13 November 2003 (13.11.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
PN20022A000093  
2 December 2002 (02.12.2002) IT
- (72) Inventor; and  
(75) Inventor/Applicant (for US only): **MAGNO, Alessandro**  
[IT/IT]; Via 4 Novembre 75, I-24030 Brembate Sopra (IT).
- (74) Agent: **GIUGNI, Valter**; Propria S.r.l., Via Mazzini, 13,  
I-33170 Pordenone (IT).
- (81) Designated States (national): JP, US.
- (84) Designated States (regional): European patent (AT, BE,  
BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU,  
IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR).
- Published:  
— with international search report

(71) Applicant (for all designated States except US): **NECTA  
VENDING SOLUTIONS S.p.A.** [IT/IT]; Via Roma 24,  
IT-24030 Valbrembo, Bergamo (IT).

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: **MECHANICALLY AND HYDRODYNAMICALLY OPERATED BREWING UNIT**



(57) **Abstract:** The invention relates to a mechanically and hy-  
drodynamically operated brewing unit (1) for automatic beverage  
vending machines, comprising a rotatable base (3) provided  
with a compartment (15) that acts as a brewing chamber, means  
to let water under pressure into said compartment, means to connect  
said compartment with the point at which the brewed beverage  
is dispensed, and a brewing head (4). This brewing head is  
comprised of a hollow containment structure (279), a first hollow  
piston (28) that is housed in said containment structure movably  
relative thereto, a second piston (29) that is accommodated in  
said first piston movably relative thereto, and elastic means (30)  
contrasting the movement of said second piston. The brewing  
unit is characterized in that said first piston and said second piston  
are operated by the direct action of a fluid under pressure.